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PCT/IB2004/051277

CLAIMS.

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1. A method of activating an electronic paint (50), comprising:  
scanning a registration code embedded in a first portion (20) of an image written on  
5 a portion of an electronic paint (50);  
determining a position of an electronic brush (30) based on the scanned registration  
code; and  
writing a second portion (22) of the image on the electronic paint (50) based on the  
determined position of the electronic brush (30).

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2. The method of claim 1 wherein writing the second portion (22) of the image on the  
electronic paint (50) comprises selectively writing a portion of the image over the embedded  
registration code.

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3. The method of claim 1 further comprising:  
writing a new registration code on an uncoded second portion (22) of the electronic  
paint (50) while writing the second portion (22) of the image, wherein the new registration code is  
embedded in the second portion (22) of the image.

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4. The method of claim 3 wherein writing the new registration code comprises writing  
one of a registration mark (24), a grid (26), or an electronic-paint surface coordinate (28).

5. The method of claim 1 further comprising:  
receiving an electronic-brush position input; and

25 writing an adapted registration code on an uncoded surface portion (22) of the  
electronic paint (50) based on the electronic-brush position input.

6. The method of claim 5 wherein the electronic-brush position input is received from  
one of a mechanical position detector (38) or an optical position detector (38).

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7. The method of claim 1 further comprising:  
receiving a tilt signal from a tilt sensor (56) attached to the electronic brush (30);  
and  
determining a rotation of the electronic brush (30) based on the received tilt signal.

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8. The method of claim 1 further comprising:  
initializing the electronic paint (50) to a reset state.

5 9. The method of claim 8 wherein the initialized electronic paint (50) is reset to a  
predetermined color.

10 10. A system for activating an electronic paint (50), comprising:  
an electronic brush (30) including an electronic-paint activation device (34);  
an electronic-brush scanner (36) coupled to the electronic brush (30); and  
a controller (40) in electrical communication with the electronic-paint activation  
device (34) and the electronic-brush scanner (36), wherein a position of the electronic brush (30) is  
determined based on a registration code embedded in a first portion (20) of an image written on a  
portion of an electronic paint (50) that is scanned by the electronic-brush scanner (36) and  
15 communicated to the controller (40), and wherein an electronic-paint write signal is sent from the  
controller (40) to the electronic-paint activation device (34) based on the determined electronic-  
brush position.

20 11. The system of claim 10 wherein the embedded registration code comprises one of a  
registration mark (24), a grid (26), or an electronic-paint surface coordinate (28).

25 12. The system of claim 10 further comprising:  
a position detector (38) coupled to the electronic brush (30) and in electrical  
communication with the controller (40), wherein the position detector (38) provides an electronic-  
brush position signal to the controller (40) based on a movement of the electronic brush (30).

13. The system of claim 12 wherein the position detector (38) comprises at least one of  
a mechanical position detector (38) or an optical position detector (38).

30 14. The system of claim 10 wherein the electronic-paint activation device (34) and the  
electronic-brush scanner (36) are wired or wirelessly connected to the controller (40).

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15. The system of claim 10 further comprising:  
a tilt sensor (56) attached to the electronic brush (30), wherein a tilt signal from the  
tilt sensor (56) is received at the controller (40) to determine an electronic-brush rotation.

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16. An electronic brush (30) for activating an electronic paint (50), comprising:  
an electronic-brush housing (32);  
an electronic-paint activation device (34) coupled to the electronic-brush housing  
(32);  
10 an electronic-brush scanner (36) coupled to the electronic-brush housing (32); and  
a controller (40) in electrical communication with the electronic-paint activation  
device (34) and the electronic-brush scanner (36), wherein a position of the electronic brush (30) is  
determined based on a registration code embedded in a portion of an image written on a portion of  
an electronic paint (50) that is scanned by the electronic-brush scanner (36) and communicated to  
15 the controller (40), and wherein an electronic-paint write signal is sent from the controller (40) to the  
electronic-paint activation device (34) based on the determined electronic-brush position.

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17. The electronic brush (30) of claim 16 wherein the controller (40) is wired or  
wirelessly connected to the electronic-paint activation device (34) and the electronic-brush scanner  
20 (36).

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18. The electronic brush (30) of claim 16 further comprising:  
a position detector (38) coupled to the electronic brush (30) and in electrical  
communication with the controller (40), wherein the position detector (38) provides an electronic-  
25 brush position signal to the controller (40) based on a movement of the electronic brush (30).

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19. The electronic brush (30) of claim 18 wherein the position detector (38) comprises  
at least one of a mechanical position detector (38) or an optical position detector (38).

20. The electronic brush (30) of claim 16 further comprising:  
a tilt sensor (56) attached to the electronic brush (30) and in electrical  
communication with the controller (40), wherein a tilt signal from the tilt sensor (56) allows a  
determination of an electronic-brush rotation

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